



*JPW*

App. No. : 10/766,684  
Applicant : Nabil L. Muhanna  
Filed : Jan. 28, 2004  
Title : Artificial Intervertebral Disc  
TC/A.U. :  
Examiner :  
Docket No. : 126013-1003

Certificate of Mailing under 37 CFR 1.8

I hereby certify that this correspondence is being deposited with the United States Postal Service as First Class mail in an envelope, with sufficient postage, addressed to: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450 on

Sept. 12, 2005  
*Anne Ziegler*

Signature  
Anne Ziegler  
Typed or printed name of person signing certificate

Commissioner for Patents  
P.O. Box 1450  
Alexandria, VA 22313-1450

Sir:

INFORMATION DISCLOSURE STATEMENT

Pursuant to the provisions of 37 C.F.R. § 1.97, Applicants hereby make of record the references set forth in the attached forms PTO/SB/08A [and PTO/SB/08B]. No inference should be made that the cited references are in fact material, are in fact prior art, or that no better art exists. The cited patents are listed in numerical order and not in any order based on their pertinence.

It is requested that the Examiner fully consider the cited references and that they be cited on the front of any patent issuing from this application.

Copies of the cited foreign references are attached.

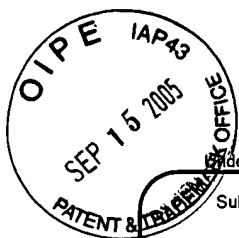
An early action on the merits is respectfully requested.

Respectfully submitted,

Date: Sept. 12, 2005

*Monique A. Vander Molen*  
Monique A. Vander Molen  
Registration No. 53,716

Gardere Wynne Sewell LLP  
1601 Elm Street, Suite 3000  
Dallas, Texas 75201-4761  
214-999-3000



Substitute for form 1449/PTO

## INFORMATION DISCLOSURE STATEMENT BY APPLICANT

(Use as many sheets as necessary)

Sheet 1 of 5

### Complete if Known

Application Number	10/766,684
Filing Date	Jan. 28, 2004
First Named Inventor	Nabil L. Muhanna
Art Unit	3738
Examiner Name	
Attorney Docket Number	126013-1003

### U. S. PATENT DOCUMENTS

Examiner Initials*	Cite No. <sup>1</sup>	Document Number	Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear
		Number-Kind Code <sup>2</sup> (if known)			
		US- 3,030,951 B1	04-24-1962	Mandarino	
		US- 4,065,817 B1	01-03-1978	Branemark et al.	
		US- 4,369,772 B1	01-25-1983	Miller	
		US- 4,653,489 B1	03-31-1987	Tronzo	
		US- 4,751,922 B1	06-00-1988	DiPietropolo	
		US- 3,320,957 B1	05-00-1967	Sokolik	
		US- 4,969,888 B1	10-13-1990	Scholten et al.	
		US- 5,030,201 B1	07-09-91	Palestrant	
		US- 5,062,845 B1	11-05-91	Kuslich et al.	
		US- 5,108,404 B1	04-28-92	Scholten et al.	
		US- 5,376,100 B1	12-27-94	Lefebvre	
		US- 5,403,317 B1	04-00-1995	Bonutti	
		US- 5,431,671 B1	07-11-95	Nallakrishnan	
		US- 5,445,639 B1	08-29-95	Kuslich et al.	
		US- 5,514,137 B1	05-07-1996	Coutts	
		US- 5,556,429 B1	09-17-97	Felt	
		US- 5,658,310 B1	09-19-97	Berger et al.	
		US- 5,693,011 B1	12-02-97	Onik	
		US- 5,695,513 B1	12-09-97	Johnson et al.	

### FOREIGN PATENT DOCUMENTS

Examiner Initials*	Cite No. <sup>1</sup>	Foreign Patent Document	Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines, Where Relevant Passages Or Relevant Figures Appear	T <sup>6</sup>
		Country Code <sup>3</sup> Number <sup>4</sup> Kind Code <sup>5</sup> (if known)				
		EP 0442137 B1	08-00-1991			
		EP 0442137 A1	08-00-1991			
		WO 9007304 A1	07-12-1990			
		WO 9851226 A2	11-19-1998			
		WO 9851226 A3	11-19-1998			
		DE 3914164	01-03-1991			

Examiner  
Signature

Date  
Considered

\*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant. <sup>1</sup> Applicant's unique citation designation number (optional). <sup>2</sup> See Kinds Codes of USPTO Patent Documents at [www.uspto.gov](http://www.uspto.gov) or MPEP 901.04. <sup>3</sup> Enter Office that issued the document, by the two-letter code (WIPO Standard ST.3). <sup>4</sup> For Japanese patent documents, the indication of the year of the reign of the Emperor must precede the serial number of the patent document. <sup>5</sup> Kind of document by the appropriate symbols as indicated on the document under WIPO Standard ST.16 if possible. <sup>6</sup> Applicant is to place a check mark here if English language Translation is attached.

This collection of information is required by 37 CFR 1.97 and 1.98. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 2 hours to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.

If you need assistance in completing the form, call 1-800-PTO-9199 (1-800-786-9199) and select option 2.

Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it contains a valid OMB control number.

Substitute for form 1449/PTO

**INFORMATION DISCLOSURE  
STATEMENT BY APPLICANT**

(Use as many sheets as necessary)

Sheet 2

of 5

**Complete if Known**

Application Number	10/766,684
Filing Date	Jan. 28, 2004
First Named Inventor	Nabil L. Muhanna
Art Unit	3738
Examiner Name	
Attorney Docket Number	126013-1003

**U. S. PATENT DOCUMENTS**

Examiner Initials*	Cite No. <sup>1</sup>	Document Number	Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear
		Number-Kind Code <sup>2</sup> (if known)			
		US- 5,720,749 B1	02-00-1998	Rupp	
		US- 5,827,289 B1	10-27-1998	Reiley et al.	
		US- 5,843,103 B1	12-00-1998	Wulfman	
		US- 5,888,220 B1	03-30-1999	Felt et al.	
		US- 5,925,056 B1	07-20-1999	Thomas et al.	
		US- 5,928,239 B1	07-27-1999	Mirza	
		US- 5,935,131 B1	08-10-1999	Bonutti	
		US- 5,972,015 B1	10-26-1999	Scribner et al.	
		US- 5,990,194 B1	11-23-1999	Dunn et al.	
		US- 6,048,343 B1	04-11-2000	Mathis et al.	
		US- 6,066,154 B1	05-23-2000	Reiley et al.	
		US- 6,071,284 B1	06-06-2000	Fox	
		US- 6,139,509 B1	10-31-2000	Yuan et al.	
		US- 6,140,452 B1	10-31-2000	Felt et al.	
		US- 6,171,312 B1	01-09-2000	Beaty	
		US- 6,210,376 B1	04-03-2001	Grayson	
		US- 6,214,012 B1	04-10-2001	Karpman et al.	
		US- 6,224,604 B1	05-01-2001	Suddaby	
		US- 6,235,043 B1	05-22-2001	Reiley et al.	

**FOREIGN PATENT DOCUMENTS**

Examiner Initials*	Cite No. <sup>1</sup>	Foreign Patent Document	Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines, Where Relevant Passages Or Relevant Figures Appear	T <sup>6</sup>
		Country Code <sup>3</sup> Number <sup>4</sup> Kind Code <sup>5</sup> (if known)				

Examiner  
SignatureDate  
Considered

\*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant. <sup>1</sup> Applicant's unique citation designation number (optional). <sup>2</sup> See Kinds Codes of USPTO Patent Documents at [www.uspto.gov](http://www.uspto.gov) or MPEP 901.04. <sup>3</sup> Enter Office that issued the document, by the two-letter code (WIPO Standard ST.3). <sup>4</sup> For Japanese patent documents, the indication of the year of the reign of the Emperor must precede the serial number of the patent document. <sup>5</sup> Kind of document by the appropriate symbols as indicated on the document under WIPO Standard ST.16 if possible. <sup>6</sup> Applicant is to place a check mark here if English language Translation is attached.

This collection of information is required by 37 CFR 1.97 and 1.98. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 2 hours to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.

If you need assistance in completing the form, call 1-800-PTO-9199 (1-800-786-9199) and select option 2.

Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it contains a valid OMB control number.

Substitute for form 1449/PTO

**INFORMATION DISCLOSURE  
STATEMENT BY APPLICANT**

(Use as many sheets as necessary)

Sheet 3

of 5

**Complete if Known**

Application Number	10/766,684
Filing Date	Jan. 28, 2004
First Named Inventor	Nabil L. Muhanna
Art Unit	3738
Examiner Name	
Attorney Docket Number	126013-1003

**U. S. PATENT DOCUMENTS**

Examiner Initials*	Cite No. <sup>1</sup>	Document Number	Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear
		Number-Kind Code <sup>2</sup> (if known)			
		US- 6,238,391 B1	05-29-2001	Olsen et al.	
		US- 6,241,734 B1	06-05-2001	Scribner et al.	
		US- 6,248,110 B1	06-19-2001	Reiley et al.	
		US- 6,248,131 B1	06-19-2001	Felt et al.	
		US- 6,264,659 B1	07-24-2001	Ross et al.	
		US- 6,296,639 B1	10-02-2001	Truckai et al.	
		US- 6,383,188 B2	05-07-2002	Kuslich et al.	
		US- 10/284,672	10-31-2002	Middleton	
		US- 6,375,659 B1	04-2002	Erbe et al.	
		US- 6,440,138 B1	08-27-2002	Reiley et al.	
		US- 4,494,535 B1	01-1985	Haig	
		US- 2001/0021852	09-2001	Chapplus	
		US- 2002/0116064	08-22-2002	Middleton	
		US- 4,403,606	09-13-1983	Woo et al.	
		US- 4,403,607	09-13-1983	Woo et al.	
		US- 4,493,317	01-15-1985	Klaue	
		US- 4,503,848	03-12-1985	Klaue	
		US- 4,513,744	04-30-1985	Klaue	
		US- 4,743,260	05-10-1998	Burton	

**FOREIGN PATENT DOCUMENTS**

Examiner Initials*	Cite No. <sup>1</sup>	Foreign Patent Document	Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines, Where Relevant Passages Or Relevant Figures Appear	T <sup>6</sup>
		Country Code <sup>3</sup> Number <sup>4</sup> Kind Code <sup>5</sup> (if known)				

Examiner  
SignatureDate  
Considered

\*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant. <sup>1</sup> Applicant's unique citation designation number (optional). <sup>2</sup> See Kinds Codes of USPTO Patent Documents at [www.uspto.gov](http://www.uspto.gov) or MPEP 901.04. <sup>3</sup> Enter Office that issued the document, by the two-letter code (WIPO Standard ST.3). <sup>4</sup> For Japanese patent documents, the indication of the year of the reign of the Emperor must precede the serial number of the patent document. <sup>5</sup> Kind of document by the appropriate symbols as indicated on the document under WIPO Standard ST.16 if possible. <sup>6</sup> Applicant is to place a check mark here if English language Translation is attached.

This collection of information is required by 37 CFR 1.97 and 1.98. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 2 hours to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.

If you need assistance in completing the form, call 1-800-PTO-9199 (1-800-786-9199) and select option 2.

Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it contains a valid OMB control number.

Substitute for form 1449/PTO

## INFORMATION DISCLOSURE STATEMENT BY APPLICANT

*(Use as many sheets as necessary)*

Sheet 4

of 5

**Attorney**

**Complete if Known**

Application Number	10/766.684
--------------------	------------

Filing Date	Jan. 28, 2004
-------------	---------------

First Named Inventor	Nabil I. Muhanna
----------------------	------------------

Art Unit	3738
----------	------

Examiner Name

Attorney Docket Number	126013-1003
------------------------	-------------

U. S. PATENT DOCUMENTS					
Examiner Initials*	Cite No. <sup>1</sup>	Document Number	Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear
		Number-Kind Code <sup>2</sup> (if known)			
		US- 4,773,406	09-27-1988	Sector et al.	
		US- 4,794,918	01-03-1989	Wolter	
		US- 5,002,544	03-26-1991	Klaue et al.	
		US- 5,019,078	05-28-1991	Perren et al.	
		US- 5,053,036	10-01-1991	Perren et al.	
		US- 5,085,660	02-04-1992	Lin	
		US- 5,118,338	05-26-1992	Frigg	
		US- 5,147,361	09-15-1992	Ojima et al.	
		US- 5,151,103	09-29-1992	Tepic et al.	
		US- 5,275,601	01-04-1994	Gogolewski et al.	
		US- 5,344,421	09-06-1994	Crook	
		US- 5,364,399	11-15-1994	Lowery et al.	
		US- 5,403,136	04-04-1995	Mathys	
		US- 5,527,311	06-18-1996	Procter et al.	
		US- 5,549,612	08-27-1996	Yapp et al.	
		US- 5,562,672	10-18-1996	Huebner et al.	
		US- 5,601,53	02-11-1997	Trebing et al.	
		US- 5,607,426	03-04-1997	Ralph et al.	
		US- 5,613,967	03-25-1997	Englehardt et al.	

[illegible]

Examiner Signature		Date Considered	
-----------------------	--	--------------------	--

\*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant. <sup>1</sup> Applicant's unique citation designation number (optional). <sup>2</sup> See Kinds Codes of USPTO Patent Documents at [www.uspto.gov](http://www.uspto.gov) or MPEP 901.04. <sup>3</sup> Enter Office that issued the document, by the two-letter code (WIPO Standard ST.3). <sup>4</sup> For Japanese patent documents, the indication of the year of the reign of the Emperor must precede the serial number of the patent document. <sup>5</sup> Kind of document by the appropriate symbols as indicated on the document under WIPO Standard ST.16 if possible. <sup>6</sup> Applicant is to place a check mark here if English language Translation is attached.

This collection of information is required by 37 CFR 1.97 and 1.98. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 2 hours to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. **SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.**

*If you need assistance in completing the form, call 1-800-PTO-9199 (1-800-786-9199) and select option 2.*

Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it contains a valid OMB control number.

Substitute for form 1449/PTO

**INFORMATION DISCLOSURE  
STATEMENT BY APPLICANT**

(Use as many sheets as necessary)

Sheet 5

of 5

**Complete if Known**

Application Number	10/766,684
Filing Date	Jan. 28, 2004
First Named Inventor	Nabil L. Muhanna
Art Unit	3738
Examiner Name	
Attorney Docket Number	126013-1003

U. S. PATENT DOCUMENTS					
Examiner Initials*	Cite No. <sup>1</sup>	Document Number	Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear
		Number-Kind Code <sup>2</sup> (if known)			
		US- 5,616,144	04-01-1997	Yapp et al.	
		US- 5,674,296	10-07-1997	Bryan et al.	
		US- 5,681,310	10-28-1997	Yuan et al.	
		US- 5,681,311	10-28-1997	Foley et al.	
		US- 5,709,686	01-20-1998	Talos et al.	
		US- 5,733,287	03-31-1998	Tepic et al.	
		US- 5,735,853	04-07-1998	Olerud	
		US- 5,766,176	08-16-1998	Duncan	
		US- 5,772,662	06-30-1998	Chapman et al.	
		US- 5,800,433	09-01-1998	Banzel et al.	
		US- 5,807,396	09-15-1998	Raveh	
		US- 5,871,486	02-16-1999	Huebner et al.	
		US- 5,891,145	04-06-1999	Morrison et al.	
		US- 5,904,683	05-18-1999	Pohndorf et al.	
		US- 5,964,762	10-12-1999	Biedemann et al.	
		US- 6,017,345	01-2000	Richelsoph	
		US- 6,022,350	02-28-2000	Ganem	
		US- 6,030,389	02-29-2000	Wagner et al.	
		US-			

FOREIGN PATENT DOCUMENTS						
Examiner Initials*	Cite No. <sup>1</sup>	Foreign Patent Document	Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines, Where Relevant Passages Or Relevant Figures Appear	T <sup>6</sup>
		Country Code <sup>3</sup> -Number <sup>4</sup> -Kind Code <sup>5</sup> (if known)				

Examiner Signature	Date Considered
--------------------	-----------------

\*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant. <sup>1</sup> Applicant's unique citation designation number (optional). <sup>2</sup> See Kinds Codes of USPTO Patent Documents at [www.uspto.gov](http://www.uspto.gov) or MPEP 901.04. <sup>3</sup> Enter Office that issued the document, by the two-letter code (WIPO Standard ST.3). <sup>4</sup> For Japanese patent documents, the indication of the year of the reign of the Emperor must precede the serial number of the patent document. <sup>5</sup> Kind of document by the appropriate symbols as indicated on the document under WIPO Standard ST.16 if possible. <sup>6</sup> Applicant is to place a check mark here if English language Translation is attached.

This collection of information is required by 37 CFR 1.97 and 1.98. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 2 hours to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.

If you need assistance in completing the form, call 1-800-PTO-9199 (1-800-786-9199) and select option 2.